

September 9, 1998

Lee Roberts

U.S. Environmental Protection Agency Region 8

Enclosed you find the Unified Watershed Assessment for the Rosebud Tribe. Listed below is information we used to make our assessment determinations.

References Used:

- State 303(d) list information
- Natural Resources Conservation Service National Resources Information data
- Tribal water quality information
- Environmental Protection Agency Index of Watershed Indicators
- USGS water quality books
- National Bureau of Census
- South Dakota State Watershed Assessment Document

Working Group Members:

- Tribal Water Quality Representatives
- NRCS (Regional Tribal Liaison, Watershed Technical Team member, NRCS/EPA Liaison
- Environmental Protection Agency (Wetlands, TMDL's, EPR, TAP)

Land Uses Affecting Water Quality:

- Cropland (center pivot irrigation and dryland)
- Rangeland
- Rural Homesites (septic systems)
- Recreation
- Livestock Operations

There is a potential for large animal feeding operations to begin moving into the area. Future threats to water quality (surface and groundwater) from these operations need to be addressed through a water quality monitoring program.

Comparison of our tribal watershed assessments to the State Assessment document confirmed the designation of Category One classification for the Keya Paha and Little White River watersheds.

The Little White River watershed is our priority watershed because of the following concerns:

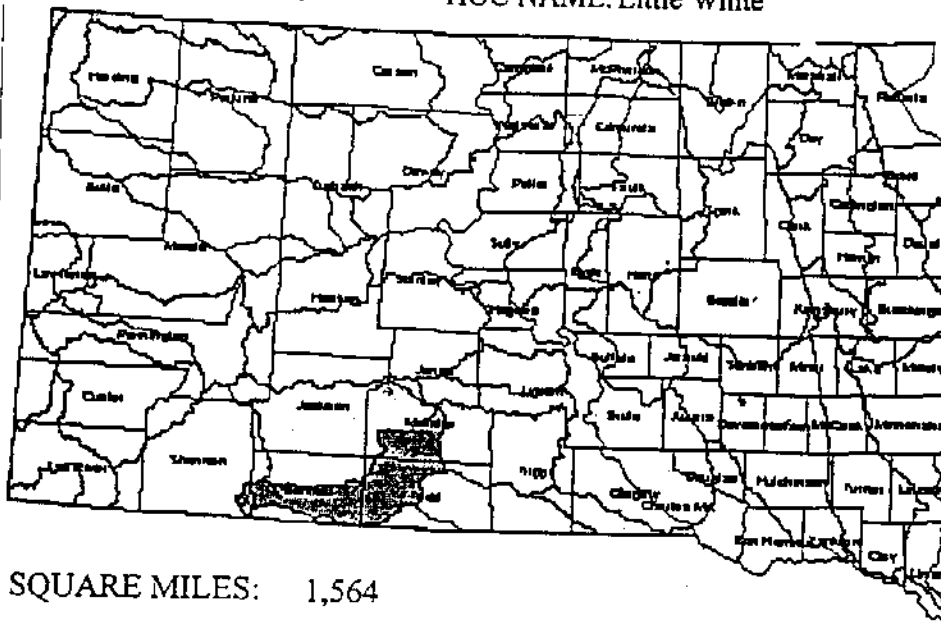
- Long-term monitoring data is available for a large portion of the area.
- It has a high aesthetic value to our people and communities.
- It has significant cultural, religious, and ceremonial importance.

Rosebud

UNIFIED WATERSHED ASSESSMENT CATEGORY: I

HUC #: 10140203

HUC NAME: Little White



SQUARE MILES: 1,564

303(d) LIST DATA

Total		Lakes		Streams	
Count	2	Total TMDL Acres:	0	Total TMDL Miles	68.4
# of Priority 1:	1	Priority 1 Acres:	0	Priority 1 Miles	12.8
# of Priority 2:	0	Priority 2 Acres:	0	Priority 2 Miles:	0.0
# of Priority 3:	1	Priority 3 Acres:	0	Priority 3 Miles:	55.6
Total Density:	12.79	Lake Density:	0	Stream Density:	459.0
Priority 1 Density:	6.39	Priority 1 Density:	0	Priority 1 Density:	85.9
Priority 2 Density:	0.00	Priority 2 Density:	0	Priority 2 Density:	0.0
Priority 3 Density:	6.39	Priority 3 Density:	0	Priority 3 Density:	373.1

LAND USE

Percent Land Use	Soil Loss - Tons/Acre	Treatment Needs	Acres in 1,000's	Density
Cropland-cultivated:	16.0	3.3		
Cropland-noncultivated:	4.0	0.3	Erosion Control:	172.8
Pastureland:	4.1	0.2	Plant Reestablishment:	0.0
Rangeland:	66.6	0.8	Forage Reestablishment:	0.0
Federal Land-Cover:	1.3	0.0	Forage Improvement:	0.0
Forest Land:	3.6	0.0	Irrigation Management:	0.0
Urban Small:	0.1	0.0	Toxic Salt Reduction:	0.0
Rural Transportation:	0.9	0.0		
Water Census Stream:	0.6	0.0	Estimated Animal / Human Equivalents:	
Water Small Stream:	0.3	0.0	Number: 63,759	Density: 41
Miscellaneous/minor:	2.5	6.6		

Estimated Human Population/HU: 5,817

Number of Point Sources: 3

Counties Included in the Hydrologic Unit: Mellette, Shannon, Bennett, Todd

Point Source Density: 19

of Environmental Hazard Mines Rated >2: 0
Density of Enviro. Hazard Mines Rated >2: 0.0

1) Number of TMDL's/HUC Area x 10,000

2) Surface Area /HUC Area x 10,000

3) Stream Length /HUC Area x 10,00

4) Acres of Treatment/HUC Area x 100

5) Number of Estimated Animal/Human Equivalents/HUC Area

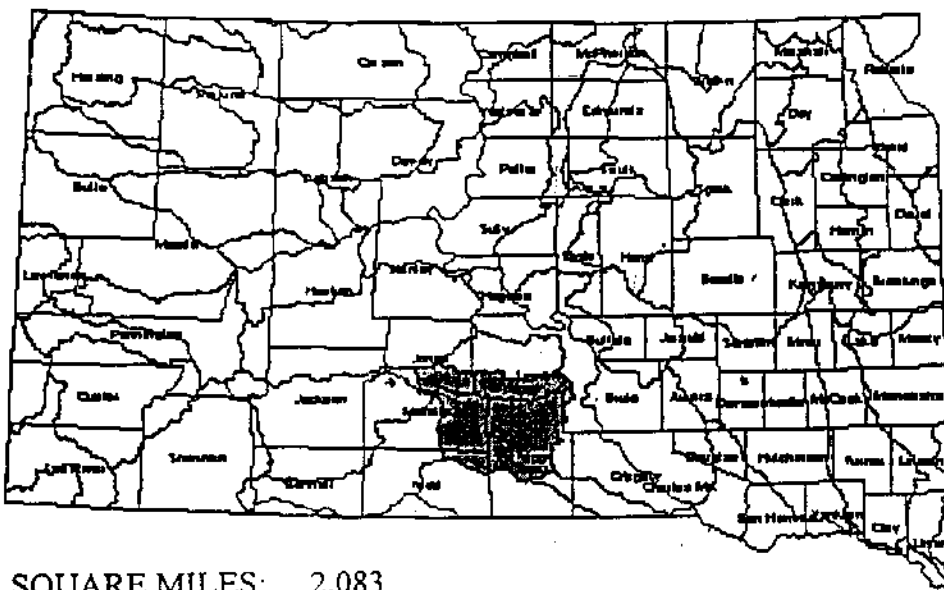
6) Environmental Impact Rating from Potentially Significant to Extreme

7) Number of Mines/HUC Area x 1,000

UNIFIED WATERSHED ASSESSMENT CATEGORY: I

FUC #: 10140204

HUC NAME: Lower White



SQUARE MILES: 2,083

303(d) LIST DATA

Total		Lakes		Streams	
Count	1	Total TMDL Acres:	0	Total TMDL Miles	170.1
# of Priority 1:	0	Priority 1 Acres:	0	Priority 1 Miles	0.0
# of Priority 2:	0	Priority 2 Acres:	0	Priority 2 Miles:	0.0
# of Priority 3:	1	Priority 3 Acres:	0	Priority 3 Miles:	170.1
¹ Total Density:	4.8	² Lake Density:	0	³ Stream Density:	856.3
Priority 1 Density:	0.00	Priority 1 Density:	0	Priority 1 Density:	0.0
Priority 2 Density:	0.00	Priority 2 Density:	0	Priority 2 Density:	0.0
Priority 3 Density:	4.80	Priority 3 Density:	0	Priority 3 Density:	856.3

LAND USE

Percent Land Use	Soil Loss - Tons/Acre	Treatment Needs	Acres in 1,000's	⁴ Density
Cropland-cultivated:	28.5	3.4		
Cropland-noncultivated:	4.2	0.4	Erosion Control:	294.6
Pastureland:	2.5	0.3	Plant Reestablishment:	1.9
Rangeland:	55.6	0.8	Forage Reestablishment:	0.0
Federal Land-Cover:	0.0	0.0	Forage Improvement:	10.9
Forest Land:	0.3	0.0	Irrigation Management:	0.0
Urban Small:	0.5	0.0	Toxic Salt Reduction:	2.7
Rural Transportation:	1.7	0.0		
Water Census Stream:	0.0	0.0	Estimated Animal / Human Equivalents:	
Water Small Stream:	0.8	0.0	Number: 212,768	⁵ Density: 102
Miscellaneous/minor:	6.0	0.2		
Estimated Human Population/HU:	6,193		⁶ # of Environmental Hazard Mines Rated >2:	0
Number of Point Sources:	2		⁷ Density of Enviro. Hazard Mines Rated >2:	0.0
Counties Included in the Hydrologic Unit:	Lyman, Jones, Mellette, Tripp, Todd	Point Source Density:	10	

- 1) Number of TMDL's/HUC Area x 10,000 2) Surface Area /HUC Area x 10,000 3) Stream Length /HUC Area x 10,000
 4) Acres of Treatment/HUC Area x 100 5) Number of Estimated Animal/Human Equivalents/HUC Area
 6) Environmental Impact Rating from Potentially Significant to Extreme 7) Number of Mines/HUC Area x 1,000